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Non-Provisional Patent Application of:

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For

Quick Release Base and Mounting Bracket for Napkin Dispenser

QUICK RELEASE BASE AND MOUNTING BRACKET
FOR NAPKIN DISPENSER

5 Claim for Priority

 This patent application is a continuation of patent application Serial No. 10/357,781, filed February 4, 2003, now United States Patent No. _____. The priority of the foregoing application is hereby claimed.

10 Technical Field

 The present invention relates generally to napkin dispensers and in a preferred embodiment to a gravity feed countertop mounted napkin dispenser having a base secured to a countertop with a quick release mounting bracket.

15 Background Art

 Dispensers for napkins including inter-folded napkins are well known in the art. Typically such dispensers are spring-loaded dispensers as is shown, for example, in the United States Patent No. 4,838,454 to *Salzmann et al.* This class of dispensers are typically placed on a countertop. There is shown in the '454
20 patent a napkin dispenser including a drawer which slides in and out of the housing and a push plate which also slides in the housing and is spring-biased to push the napkins forward. A pair of locks on the rear of the drawer in the preferred napkin dispenser pushes the plate forward when the drawer is open but pivot to release the push plate when the drawer is closed so the napkins are not
25 pressed too tightly, even if napkins are overloaded in the drawer when it is open.

 United States Patent No. 4,679,703 to *De Luca* discloses a napkin dispenser configured to reduce bunching at the dispensing opening in the napkin dispenser. A pair of pressure relief rods are provided along the upper and lower

portions of the dispenser face plate to relieve pressure between the face plate and the center portion of the napkin stack.

United States Patent No. 4,343,415 to *Radek* shows a napkin dispenser
5 designed for disposition on a restaurant table or counter housing a stack of paper napkins. The dispenser is in the form of a parallelepiped with a top axis opening for loading and removing napkins. The opening is generally rectangular or may taper slightly from one end to the other. A salient feature is that the edges of the opening extend outwardly providing a relatively narrow peripheral arcuate flange
10 or lip around the opening, the effect of which is to lead a napkin gently outwardly without likelihood of damage to the exiting napkins.

United States Patent No. 4,311,252 to *Hope, Jr. et al.* discloses a large capacity elevator type napkin dispenser including an elongated supporting
15 structure or cage composed of series of spaced rod-like vertical supports. A stack of folded napkins is supported on a pressure plate that is mounted on a carriage adapted to slide vertically within the cage, whereas United States Patent No. 4,094,442, also to *Radek* discloses a napkin dispenser provided with an aperture which is generally rectangular except for a concavely arcuate edge on one side
20 from which the napkins are normally extracted. Two opposed sides of the opening normal to the arcuate edge are provided with a pair of relatively narrow spring-biased leaves resiliently extendable into the container to facilitate loading, the free edges of the leaves being longitudinally gently oblique and widening to the aforesaid arcuate edge. Each of the leaves has a longitudinal outwardly turned lip
25 and the exposed corners of the leaves are rounded. The features are reported to contribute towards a convenient extraction of a napkin without damage.

As will be appreciated from the foregoing, spring-biased dispensers are prone to overfilling and malfunction and may damage product if the dispensers are
30 misused. Gravity feed dispensers are simpler and less subject to malfunction;

however they are more difficult to conveniently locate in establishments which require countertop access to the napkins.

Summary of Invention

5 There is provided generally in accordance with the invention a countertop mounting base and bracket for releasably securing a napkin dispenser attached to the base. The mounting system includes a base having a generally planar upper surface and a sidewall extending downwardly therefrom to define a hollow cavity and also defining a stepped locking recess having an upper portion with a first
10 recess width and a lower portion with a second recess width where the upper locking recess width is smaller than the lower locking recess width. The base is also provided with a plurality of locking projections in the hollow cavity having locking shoulders thereon each of which has a characteristic locking shoulder width. The base cooperates with a mounting bracket provided with means for
15 attaching the bracket to a countertop. The bracket has a raised central locking surface provided with a moveable tongue adapted to flex with respect to the locking surface from a locking position to a release position. The tongue is provided with a stepped outer profile defining an outer width which is less than
20 equal to the upper recess width of the base. The tongue also has a locking width which is greater than the upper recess width of the base, the locking surface of the mounting bracket being further provided with a plurality of locking slots with open portions having widths at least as great as a corresponding characteristic width of a locking shoulder of a corresponding locking projection of the base. The locking slots of the locking surface also have elongated narrow portions with
25 widths smaller than corresponding characteristic widths of locking shoulders of locking projections of the base. The base and mounting bracket are configured such that the locking projections of the base may be inserted into the open portions of the locking slots and the base slid into the locking position with the bracket wherein the shoulders of the locking projections of the base are secured
30 from vertical translation away from the locking position by the elongated narrow portions of the locking slots of the raised central locking surface of the mounting

bracket. The base is concurrently prevented from horizontal translation away from the locking position by the locking width of the tongue until the tongue is flexed downwardly to its release position.

5 Typically the base further includes a post for mounting a napkin dispenser, such as a gravity feed napkin dispenser of the general class disclosed in United States Patent Application Serial No. 10/213,575, filed August 7, 2002, entitled "Gravity-Feed Dispenser and Method of Dispensing Inter-Folded Napkins" (Attorney Docket 2377 (GP-01-19), the disclosure of which is hereby
10 incorporated by reference. So also, in a preferred embodiment the mounting bracket is stamped from sheet metal and the base is cast from white metal.

 Generally, the tongue requires a force of from about 2 to about 10 pounds to move it from the locking position to the release position. In the locking
15 position, the tongue may be generally co-planar with the raised locking surface of the mounting bracket or it may be elevated slightly in portions if so desired. Typically, the tongue requires a force of from about 4 to about 6 pounds to move it from the locking position to the release position.

20 In a preferred embodiment the assembly of the bracket and base includes biasing means to urge the base and bracket into engagement with each other in the locking position. The biasing means may be, for example, upwardly raised portions defined on the mounting bracket and downwardly projecting ridges on the base located within the hollow cavity. There are optionally provided guide
25 ridges on the base as described hereinafter. The upper portion of the stepped locking recess of the base typically has an L-shaped profile as does a lower portion of the stepped locking recess of the base. The stepped outer profile of the tongue is also generally L-shaped on both sides and may include an arcuate central portion at the end of the tongue.

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A particularly preferred arrangement is a countertop mounting base and bracket for releasably securing a napkin dispenser including a base with a generally planar upper surface and a sidewall extending downwardly therefrom to define a hollow cavity wherein there is provided a plurality of downwardly
5 extending vertical ribs including at least two longitudinally extending mounting ribs each of which is provided with at least one engagement ridge thereon. The sidewall also defines a stepped locking recess having an upper portion with a first recessed width and a lower portion with a second recessed width where the upper recessed width is smaller than the lower recessed width. A base is further
10 provided with a plurality of locking projections in the hollow cavity having locking shoulders each of which has a characteristic locking shoulder width.

The mounting bracket is provided with means for securing it to the countertop as well as at least two longitudinal guide tracks each of which has at
15 least one raised engagement portion for interacting with the engagement ridges of the mounting ribs of the base. The bracket further includes a raised central locking surface between the longitudinal guide tracks provided with a moveable tongue adapted to flex with respect to the locking surface from a locking position to a release position, the tongue being provided with a stepped outer profile
20 defining an outer width which is less than equal to the upper recess width of the base and a locking width which is greater than the upper recessed width of the base. The locking surface of the mounting bracket is still further provided with a plurality of locking slots with open portions having widths at least as great as the corresponding characteristic widths of the locking shoulders of the locking
25 projections of the base and elongated narrow portions having widths smaller than corresponding characteristic widths of locking shoulders of locking projections of the base. The base and mounting bracket are configured such that the locking projections on the base may be inserted into the open portions of the locking slots and the base slid into the locking position with the bracket wherein the shoulders
30 of the locking projections of the base are secured from translation away from the locking position by the elongated narrow portions of the locking slots of the raised

central locking surface of the mounting bracket. The base is prevented from horizontal translation away from the locking position by the locking width of the tongue until the tongue is flexed downwardly to its release position. In this preferred embodiment the engagement ridges of the base and the raised engagement portions of the mounting bracket urge the mounting bracket and the base into engagement with each other. The engagement portions of the mounting bracket are preferably arcuate portions of the guide tracks of the mounting bracket.

10 Brief Description of Drawings

The invention is described in detail below with reference to the various Figures in which like numerals designate similar parts and wherein:

15 **Figure 1** is a perspective view of a gravity feed napkin dispenser mounted on a countertop with the mounting base and bracket in accordance with the present invention;

20 **Figure 2** is an exploded view in perspective showing the inventive base and mounting bracket of **Figure 1**;

Figure 3 is another exploded view in perspective showing the inventive mounting base and bracket of **Figure 1**; and

25 **Figures 4-6** are schematic views in perspective of another embodiment of the mounting base and bracket of the present invention.

Detailed Description

30 The invention is described in detail below in connection with several embodiments. Such description is for purposes of illustration and exemplification only. Variants to the embodiments illustrated within the spirit and scope of the

present invention, set forth in the appended claims, will be readily apparent to those of skill in the art.

Referring to **Figures 1-3** there is shown a gravity feed napkin dispenser **10**
5 mounted on a post **12** secured to a mounting base **14** configured in accordance with the present invention. Mounting base **14**, in turn, is secured to a mounting bracket **16** as appears in **Figures 1, 2 and 3**. Napkin dispenser **10** may be of the class described in co-pending application Serial No. 10/213,575, filed August 7, 2002 entitled "Gravity-Feed Dispenser and Method of Dispensing Inter-Folded
10 Napkins" (Attorney Docket 2377 (GP-01-19)). The post upon which napkin dispenser **10** is mounted maybe secured to base **14** by way of screws **18** and **20** provided with washers **22** and **24**.

Base **14** is provided with a plurality of ridges such as transverse ribs **26**
15 and **28**, guide ridges **27, 29** as well as longitudinal ribs **30** and **32**. Ribs **30** and **32** are provided with ridges **34, 36, 38** and **40** as can be seen in **Figure 3**. There is also provided on the base a plurality of locking projections in the form of fasteners **42, 44, and 46** each of which has a shaft **48**, a shaft **50** and a shaft **52** as well as a head **54**, a head **56** and a head **58**. Fasteners may be screws or bolts or the like
20 which are fitted to be secured in holes **60, 62** and **64** respectively defined on base **14**. The fastener operates as locking projections as will become apparent from the discussion which follows.

The base is further provided with a stepped recess **66** which has L-shaped
25 profiles at his lower portion **68** and its upper portion **70** as is best seen in **Figure 3**. Note that the width of the upper portion of recess **66** indicated at **72** is less than the width of the lower portion of recess **66** indicated at **74**.

The base is specifically designed to cooperate with the countertop
30 mounting bracket **16**. Mounting bracket **16** has a left track **76** and a right track **78** each of which has a pair of arcuate projections **80, 82, 84, and 86** which interact

with the ridges **34, 36, 38** and **40** of the base in order to urge the bracket and mounting base into contact with each other when the base is secured to the bracket. The bracket is further provided with a raised central portion **88** which has a tongue **90** as well as locking slots **92, 94** and **96**. There are further provided
5 guide slots **95, 97** on either side of the tongue. The mounting bracket is secured to a countertop **98** by way of screws such as screw **100** or by way of double sided tape indicated at **102** and **104**. Note that tongue **90** also has a stepped profile at its portion **106** notably having L-shaped profile on either of its side at **108** and **110**.

10 In order to secure the napkin dispenser to countertop **98** the mounting bracket **16** is first secured to the countertop. Base **14** optionally provided with mounting post **14** and napkin dispenser **10** is secured to the mounting bracket by way of fasteners **42, 46** and **48**. That is to say, the fasteners are first inserted into the open portions **106, 108** and **110** of slots **92, 94**, and **96** and then the entire base
15 is slid rearwardly in the direction indicated by arrow **120** in **Figures 2** and **3** such that the fastener heads will be restrained from vertical translation by the narrow portions **112, 114**, and **116** of slots **92, 94** and **96**. When the base is slid rearwardly into the locking position shown in **Figure 1** the stepped profile of tongue **90** prevents the base from sliding forwardly to the release position until
20 tongue **90** is pressed downwardly in the direction indicated by arrow **122**. That is to say tongue **90** by virtue of the fact that its width at **124** is wider than the width **72** of the upper portion of the locking recess of base **14** prevents horizontal translation of the base away from the locking position shown in **Figure 1** until tongue **90** is pressed downwardly in the direction indicated by arrow **122** to a
25 release position where the width **124** is below the upper portion of slot **66** as should be fully appreciated from **Figures 1, 2** and **3**. So also, the various raised portions of tracks **76** and **78**, that is raised portions **80, 82, 84** and **86** interact with the engagement ridges **34, 36, 38** and **40** of the base to urge the bracket and base into secure contact with one another so that the napkin dispenser will not rock
30 when secures to countertop **98**. Preferably, width **124** of tongue **90** is larger than width **72** of the upper portion of recess **66** but smaller than width **74** of the lower

portion of stepped recess 66. In preferred embodiments, the base and bracket are urged into engagement before tongue 90 latches into place in its locking position in slot 66. So also, base 14 preferably includes guide ridges 27, 29 which cooperate with slots 95, 97 of the mounting bracket in order to orient the base with respect to the bracket and prevent unwanted snagging of the locking projections on slots or holes while the assembly is being locked into engagement. That is to say, ridges 27, 29 are configured to cooperate with slots 95, 97 in order to orient the base with respect to the mounting bracket as the base is being engaged with the mounting bracket.

10 There is shown in **Figures 4- 6** an alternate embodiment of the inventive bracket and mounting base for a napkin dispenser. The mounting base and bracket have generally the features described above in connection with the embodiment of **Figures 1-3**. However, here mounting bracket 16 is secured to countertop 98 by way of four screws such as screws 100, located on the various corners of the mounting bracket. The mounting bracket has a raised central portion 88 which is generally planar as is tongue 90. That is to say, tongue 90 is co-planar with the rest of raised portion 88. Raised portion 88 is only provided with two slots 92 and 94 having open portions 106 and 108 as well as narrow portions 112 and 114. The base is provided with a stepped locking recess 66 having an upper portion and a lower portion with two L-shaped shoulders on either side of upper and lower parts of the stepped recess 66. That is, both the upper portion 70 and lower portion 68 of recess 66 have L-shaped profiles on both sides as shown. Here again the base 14 has an upper surface and a hollow cavity 45 for mounting over bracket 16. There is optionally provided transverse support ribs such as rib 47 to strengthen the base. Here again tongue 90 has a pair of shoulders 128 and 130 to interact with stepped recess 66 in order to secure the base in the locked position until tongue 90 is pressed downwardly to release the base so that it may be slid away from mounting bracket 16.

30 While the invention has been described in connection with several embodiments, modifications of those embodiments within the spirit and scope of

the present invention will be readily apparent to those of skill in the art. The invention is defined in the appended claims.